

ABSTRACT

Cylinders and cylinder liners suitable for use in reciprocating piston engines, compressors and pumps may include a first cylinder surface region (5) having a first surface roughness (Ra1) and a second cylinder surface region (6) having a second surface roughness (Ra2). The first cylinder surface region (5) comprises at least the contact area between the reciprocating piston (2) and a cylinder wall (1) from the top dead point (TDP) of the reciprocating piston (2) towards the bottom dead point (BDP). The second cylinder surface region (6) may be adjacent to the first cylinder surface region (5) and preferably includes a portion of the cylinder wall (1) that contacts the reciprocating piston (2) when the reciprocating piston is disposed at its bottom dead point (BDP). The first surface roughness is preferably smaller or less than the second surface roughness. Further, the first cylinder surface region (5) may comprise a hard chromium layer and the second cylinder surface region (6) may comprise a topochromium layer.